

PreCalculus

Practice Problems

Domain/Range

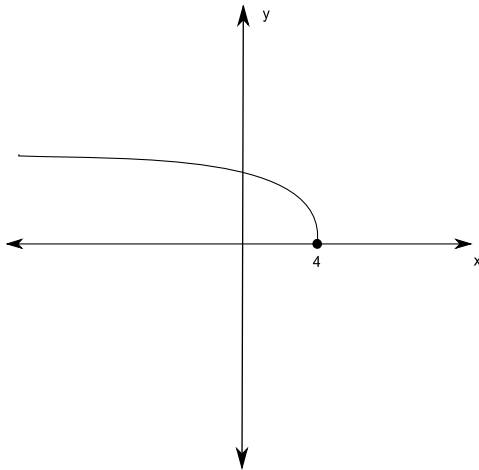
Transformations

Name _____

Date _____ Period _____

Evaluate each of the following.

1)

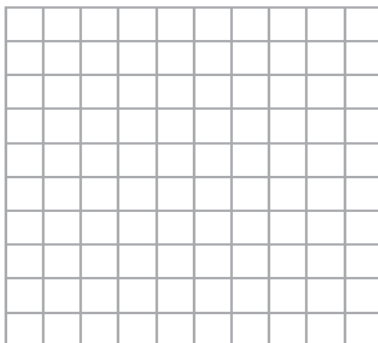


- a). Is this graph a function?
- b). What is its domain?
- c). What is its range?

For each of the following draw a function that has the indicated domain and range.

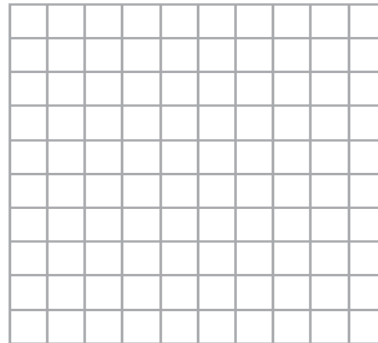
2) Domain: $\{x/x \in \mathbb{R}\}$

Range: $\{y/y > -3\}$



3) Domain: $(-\infty, 2] \cup (3, \infty)$

Range: $(-\infty, 0) \cup [4, \infty)$



Identify the domain of each function algebraically.

4) $f(x) = -4x^3 - 6$

5) $y = \frac{2x+3}{x-7}$

6) $y = \sqrt{x+3}$

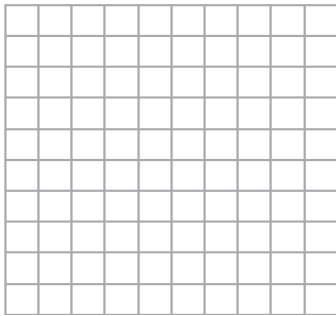
7) $y = \frac{\sqrt{x-1}}{x+3}$

8) $f(x) = \frac{3x^2+2x}{7}$

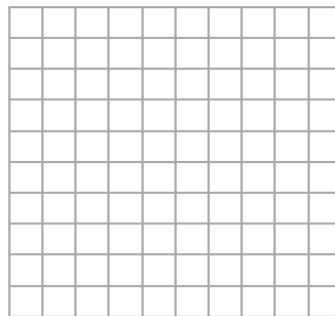
9) $y = \frac{3x}{x^2-9}$

Graph each of the following functions

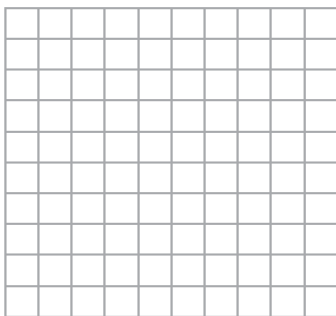
10) $y = -\log x - 3$



11) $f(x) = e^{x-2} + 1$



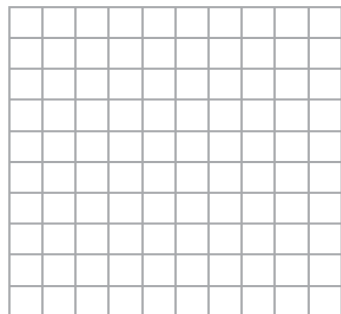
12) $f(x) = -\lceil |x+2| \rceil$



13) $y = x - 4$



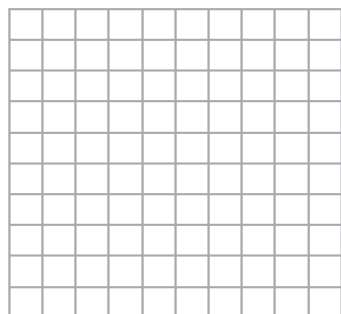
14) $f(x) = \frac{1}{x-3}$



15) $y = -(x+7)^2$



16) $y = -x^3 + 5$



17) $f(x) = -|x-3| + 4$

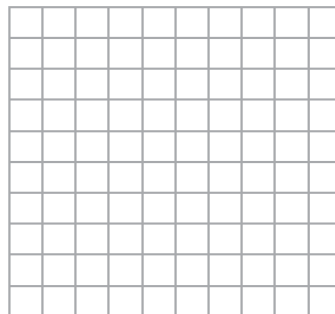


Identify if each is affected by a horizontal or vertical stretch or compression. Graph

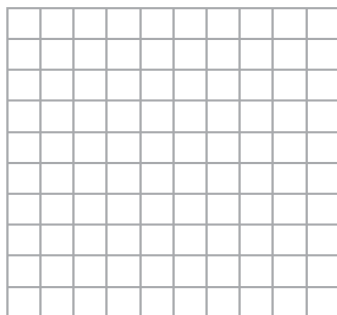
18) $y = 4x^3 - 1$ _____



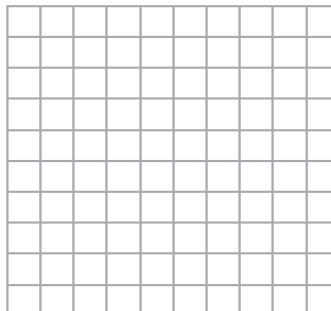
19) $y = 2|x+4|$ _____



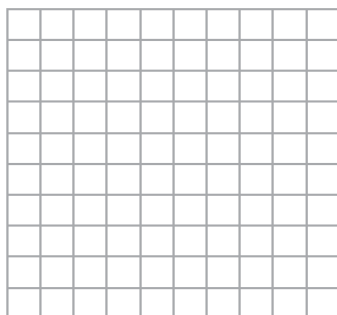
20). $y = \left(\frac{1}{3}x\right)^2 - 2$ _____



21). $y = \frac{1}{2}\sqrt{x+2}$ _____



22) $f(x) = \frac{3}{x} + 2$



23) $f(x) = -\sqrt[3]{\frac{2}{3}x - 1}$

